Date: Sun, 24 Apr 94 04:30:22 PDT

From: Ham-Digital Mailing List and Newsgroup <ham-digital@ucsd.edu>

Errors-To: Ham-Digital-Errors@UCSD.Edu

Reply-To: Ham-Digital@UCSD.Edu

Precedence: Bulk

Subject: Ham-Digital Digest V94 #127

To: Ham-Digital

Ham-Digital Digest Sun, 24 Apr 94 Volume 94 : Issue 127

Today's Topics:

(none)

\*\*BYTE Magazine\*\* features DSP, May 1994
AX.25 Library Available?
Digital signal info sources?
Doom (2 msgs)
homemade PACKET

Send Replies or notes for publication to: <Ham-Digital@UCSD.Edu>
Send subscription requests to: <Ham-Digital-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Digital Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/ham-digital".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

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Date: 24 Apr 94 02:55:00 GMT From: news-mail-gateway@ucsd.edu

Subject: (none)

To: ham-digital@ucsd.edu

unsubscribe

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Date: 23 Apr 94 22:56:38 GMT

From: dog.ee.lbl.gov!agate!blanket.mitre.org!world!eac@ucbvax.berkeley.edu

Subject: \*\*BYTE Magazine\*\* features DSP, May 1994

To: ham-digital@ucsd.edu

In <1994Apr19.143824.18972@midway.uchicago.edu> khopper@kimbark.uchicago.edu (Kenneth C Hopper) writes:

>timedia Mainstream". This two pager covers the Microsoft DSP API

Is microsoft going to try to have an API for everything? Next it will be MSDOS for DSP.

Or perhaps a ham receiver control API? Hummm, maybe not a bad idea!

73 Eric eac@world.std.com

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Date: 23 Apr 94 23:13:48 GMT

From: dog.ee.lbl.gov!agate!headwall.Stanford.EDU!rbatra@ucbvax.berkeley.edu

Subject: AX.25 Library Available?

To: ham-digital@ucsd.edu

Hi All,

Is there an AX.25 library available? I would like to send down my data through a library which would create an AX.25 packet and then either return this information to me so I can pipe it through the serial port or have it do that for me. I would like the source for the 68000 series or in C.

Thanks in advance,

Rajesh Batra rbatra@leland.stanford.edu

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Date: Fri, 22 Apr 1994 00:45:32 GMT

From: ihnp4.ucsd.edu!library.ucla.edu!psgrain!reuter.cse.ogi.edu!

netnews.nwnet.net!raven.alaska.edu!aurora.alaska.edu!fsdpr@network.ucsd.edu

Subject: Digital signal info sources?

To: ham-digital@ucsd.edu

Hello. I'm looking for information on analog to digital conversion, vice-versa, and digital signal processing (methods and algorithms). If anyone knows of an FTP site or a good gopher source, that'd hit the spot.

Thanks de N10SN Dave Riesz fspdr@aurora.alaska.edu

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Date: 22 Apr 1994 18:51:04 GMT

From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!vixen.cso.uiuc.edu!newsrelay.iastate.edu!hobbes.physics.uiowa.edu!news.uiowa.edu!

panda@network.ucsd.edu

Subject: Doom

To: ham-digital@ucsd.edu

You theoretically \*could\* play Doom over ham radio, but I believe it likes to have around 10K/second to run... 1K/sec bare minimum. Not gonna happen on packet 8-), especially if you are talking any significant distance.

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Date: 22 Apr 94 12:09:37 GMT

From: agate!howland.reston.ans.net!vixen.cso.uiuc.edu!sdd.hp.com!nigel.msen.com!zib-berlin.de!news.belwue.de!news.dfn.de!news.uni-augsburg.de!rzsun2.RZ.Uni-

Augsburg.DE!hilbigva@ucbvax.berkeley.

Subject: DOOM

To: ham-digital@ucsd.edu

In article <205@envirolaw.win.net>, slc@envirolaw.win.net (Stephen L. Castner)
writes:

|> Could you play DOOM over packet? It would be really cool if you
|> could!

I don't know exactly, what DOOM is (say: I never played it), but I think you need a high speed packet interface then and a free QRG :)

PS: Just kidding like you.

Sincerely yours, \ | | /nick Tino hilbig@uni-augsburg.de Mit freundlichen Gr"u"sen, \ |-| finger hilbigva@ftp.uni-augsburg.de Valentin Hilbig \ | Packet Radio dg8mgv @ db0sao.deu.eu GCS 1.0.1: d? p- c+++ l++ u++ e+@ m+ s !n h+(\*) f- g+ w+++ t++ r- !y Nobody is perfect. I am too.

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Date: Fri, 22 Apr 1994 19:48:56 GMT

From: pacbell.com!tandem!Everest.Tandem.COM!parker@ames.arpa

Subject: homemade PACKET To: ham-digital@ucsd.edu

I am wanting to build a packet system from scratch. I need information on the following:

packet modem ic's
packet schematics
packet protocol
packet etc. software for PC

I am presently going to experiment with the AMD 7910 Modem ic. I would like to know about some newer modem chips, especially useful for packet radio.

I am also interested in getting setup for direct satelite communication. I need info. on that, and tracking software.

If anyone can help me, I would appreciate it.

thanks,

Parker

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Date: Thu, 21 Apr 1994 18:13:07 GMT

From: ihnp4.ucsd.edu!usc!math.ohio-state.edu!howland.reston.ans.net!EU.net!uknet!

bcc.ac.uk!rs6-229.ucl-26.bcc.ac.uk!zcapl34@network.ucsd.edu

Subject: Internet <=> Packet mailbox needed??? Help?

To: ham-digital@ucsd.edu

Thanx for taking the time to read this post... The problem I have is that I want to keep in touch with my local Ham society. I do not have packet equipment here in college but I do have internet access.

So... Is it possible that someone could forward my mail onto a mailbox, and vice-versa. Is there a server that can do that??? I know there isn't in the UK as internet connections are not allowed due to third party traffic laws. Would/Could it be possible for me to get on a US mailbox???

IE: GWOTJO @ WD????? etc??? I am a complete newbie to this packet<=>Internet gateway so if anyone canm answer my question It would be appreciated. Thanx again.

Redvers.Davies@ucl.ac.uk GWOTJO

- -

## ----- PEOPLE======

This mail is sent to you by zcapl34@ucl.ac.uk, all World Rights Reserved... No part of this mail may be re-transmitted (that means re-mailed dolt) or

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Date: 22 Apr 1994 05:01:42 -0000

From: ihnp4.ucsd.edu!library.ucla.edu!csulb.edu!csus.edu!sacsa3.mp.usbr.gov!

ash.lab.r1.fws.gov!ash.lab.r1.fws.gov!not-for-mail@network.ucsd.edu

Subject: Msys and mfj w/2.1.9 firmware

To: ham-digital@ucsd.edu

We have an interesting problem that I wonder if anybody else has noticed or solved. First, we have a 1270B with a 2.1.9 firmware ROM and as a normal tnc, it works fine. We can connect to other stations, etc.

But when we load msys and execute it, the tnc won't connect. Msys puts the tnc in KISS mode and sometimes a monitoring station (JNOS) can decode the packets. Sometimes it can't...

If we swap out the ROM with a KISS EPROM, all works fine. Is there something wrong with the KISS firmware in the 2.1.9 code?

**Thanks** 

- -

Stu Mitchell
USFWS Forensic Lab
stu@ash.lab.r1.fws.gov - or - mitchellstu@fws.gov
# I speak for myself, not the US Government! #

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Date: 22 Apr 94 12:25:50 GMT

From: ghost.dsi.unimi.it!univ-lyon1.fr!swidir.switch.ch!scsing.switch.ch!

news.dfn.de!news.uni-augsburg.de!rzsun2.RZ.Uni-Augsburg.DE!

hilbigva@tcgould.tn.cornell.edu Subject: On-Air Encryption?.. To: ham-digital@ucsd.edu

In article <dfajardoCoKM6z.687@netcom.com>, dfajardo@netcom.com (Douglas Fajardo)
writes:

|> Richard Whittaker (rwhittak@docwhitehoorse.doc.ca) wrote:
[snip]

> : I've been working with the DOC on a project to use digital radio in disaster

|> : situations to connect with the Internet via RF links...

```
|> <text deleted>
|> :.... although they raised
|> : the question of security of the data stream between the remote site (the
|> : on-scene packet station), and the dish. This link would be made on
|> : pre-determined "commercial" frequencies, so the question arose as to what
|> : encryption schemes there were to bolster security of information passing
|> : over the air... Does any such scheme currently exist, and if so, where would
|> : one find it and how good is it?.. Any information would be of great
|> : assistance...
> There is a serious question of what is being protected, and what level
|> of protection is desired. If you simply dont want the media or the casual
[snip]
|> use it. This would require the originator of the mesage encoding the
|> message before sending it.
|>
     If your reasons for needing security go beyond this level, then I suspect
|>
> the answer is no, and it probably can't be done in a secure fashion
Definitively not. Check out KERBEROS, the Berkeley TCP/ip extension found in
BSD compatible Unix(tm) systems like BSDI etc.
However, KERBEROS is protected by american law and the supporting DES
hardware is under export restriction.
But DES is freely available here in Europe and in the rest of the
world, because algorithms can only be patented in US.
Running KERBEROS without DES hardware would be a bottleneck and slow
down the machine too much, because KERBEROS is designed to work in
Ethernet speed ... So KERBEROS is very interesting, but I don't know
any place where it is used.
> without getting some kind of crypto gear. (Beware of the DES trap; DES
|> can't be implemented in software and still be in compliance with the
>> spec - software implementationsof DES are dis-allowed!).
|>
|>
     Because Amateur radio is not allowed to use encryption, no development
```

There is no HAM implementation AFAIK. But there is no problem to interconnect two Systems protected by KERBEROS over two Packet Gateways. Richard wrote about "commercial" frequencies, so crypted signals should be no legal problem.

|> of hardware for this purpose has been done to the best of my knowledge.

Nobody is perfect. I am too.

\_\_\_\_\_

Date: 21 Apr 94 18:16:17 GMT

From: agate!howland.reston.ans.net!cs.utexas.edu!utnut!torn!uunet.ca!uunet.ca!

lhaven.UUmh.Ab.Ca!Pj\_Butts@ucbvax.berkeley.edu

Subject: On-Air Encryption?..

To: ham-digital@ucsd.edu

In a message dated Sat 16 Apr 94 22:54, Rwhittak@docwhitehoorse.doc.ca (ric wrote:

- R> Newsgroups: rec.radio.amateur.digital.misc
- R> Path: dres.dnd.ca!netfs.dnd.ca!dgbt!clark.dgim.doc.ca!news
- R> From: rwhittak@docwhitehoorse.doc.ca (Richard Whittaker)
- R> Subject: On-Air Encryption?..
- R> Message-ID: <1994Apr16.173958.2447@clark.dgim.doc.ca>
- R> Sender: news@clark.dgim.doc.ca (#Usenet News)
- R> Organization: Square Hole BBS/UX Whitehorse Yukon Territory
- R> X-Newsreader: TIN [version 1.2 PL2]
- R> Date: Sat, 16 Apr 94 17:39:58 GMT
- R> Lines: 24
- R> Greetings from Whitehorse!..
- R> I've been working with the DOC on a project to use digital radio in
- R> disaster
- R> situations to connect with the Internet via RF links to router
- R> stations with
- R> satellite dishes scattered around the territory. We've demonstrated
- R> the
- R> effectiveness of this system to "the powers that be", although they
- R> raised
- R> the question of security of the data stream between the remote site
- R> (the
- R> on-scene packet station), and the dish. This link would be made on
- R> pre-determined "commercial" frequencies, so the question arose as to
- R> what
- R> encryption schemes there were to bolster security of information
- R> passing
- R> over the air... Does any such scheme currently exist, and if so, where
- R> would
- R> one find it and how good is it?.. Any information would be of great
- R> assistance...
- R> Thanks in advance..
- R> Cheers,
- R> Rich W.

R> --

R> Richard Whittaker: Snailmail: 1102 Pine St, Whitehorse YT Y1A 4E8

R> Internet E-Mail: rwhittak@orion.docwhitehorse.doc.ca

R> Geographic Coords: 60 Deg., 45', 53" N., 135 Deg., 7', 17" W.

R> Amateur Radio: VY1RW, VY1RW@VY1DX, VY1RW@VY1BBS, 145.010 MHz

R>

TRY USING A DATARADIO UNIT.IT HAS AN INTERNAL RF SCRAMBLER.YOU CAN ALSO USE ONE OF THE AFTER-MARKET SCRAMBLER OVERLAY SOFTWARE PACKAGES.

I USE THEM IN COMMERCIAL APPLICATIONS NOW AND HAVE HAD NO PROBLEMS.

-- Via DLG Pro v1.0

Preferred: Pj\_Butts@LHaven.UUmh.AB.CA

Alternate: Pj.Butts@f3002.n134.z1.fidonet.org

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Date: 24 Apr 94 10:06:39 GMT

From: dog.ee.lbl.gov!agate!howland.reston.ans.net!cs.utexas.edu!not-for-

mail@ucbvax.berkeley.edu
Subject: Packet<==>Internet
To: ham-digital@ucsd.edu

Hi there, thanks for taking the time to read this.

I am a student in London who wants to send packets (as in mail) to my friends at home. Does anyone know anybody who can forward my mail on and off the packet net. IE: I packet BBS which I can use through internet. If anyone can help it would be most appreciated. The BBS can be anywhere in the world, EMail address'? Telnet address'???

Any help will be much appreciated.

GWOTJO a.k.a. redvers.davies@ucl.ac.uk

P.S. I will mail copies of my licence to anyone who needs it to prove I am licienced.. Thanks again.

- -

-----=====SMILE PEOPLE======

This mail is sent to you by zcapl34@ucl.ac.uk, all World Rights Reserved... No part of this mail may be re-transmitted (that means re-mailed dolt) or

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Date: 22 Apr 94 06:34:26 GMT

From: ihnp4.ucsd.edu!usc!nic-nac.CSU.net!charnel.net.csuchico.edu!charnel!

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yeshua.marcam.com!zip.eecs.umich.edu!newsxfer.itd.umich.edu!nntp.cs.ubc.ca!
unixg.ubc.ca!unixg.ubc.ca!bnowak@network.
Subject: Wefax software, or wefax specs
To: ham-digital@ucsd.edu
I have a Kantronics KPC-3 tnc and would like to recieve wefax.
Is there any software on the net that can help me?.
I would also like some info on wefax format so that i could write
some software to display it wefax .
_ _
73
de VE70BN
Brad Nowak
Date: 22 Apr 94 12:05:12 GMT
From: agate!howland.reston.ans.net!pipex!zaphod.crihan.fr!jussieu.fr!univ-
lyon1.fr!swidir.switch.ch!scsing.switch.ch!news.dfn.de!news.uni-augsburg.de!
rzsun2.RZ.Uni-Augsburg.DE!hilbigva@ucbvax.
To: ham-digital@ucsd.edu
References <20jll8$431@spitfire.navo.navy.mil>,
<MIKEC.94Apr18110521@cantor.praxis.co.uk>, <1994Apr19.110727.1@ugun2a>ir.sw
Subject : Re: WA8DED ( help)
In article <1994Apr19.110727.1@ugun2a>, pfund@uni2a.unige.ch writes:
> In article <MIKEC.94Apr18110521@cantor.praxis.co.uk>, mikec@praxis.co.uk (Mike
Chace) writes:
|> >
         Get NORD><LINK's The Firmware. It's a clone of WASDED, has many
|> >
         improvements for AX.25 work, includes code for DAMA and has the
         most stable KISS mode I've found in any TNC firmware.
|> >
[snip]
|> Where can you get this from ???
|> By the way, is there a Hostmode eprom which can also do KISS ?
According what I wrote to richard_smith@nrl7350.nrlssc.navy.mil (richard smith)
-----8<------
richard smith writes:
      Hi There.. Tnx for the information. I tried ucsd.edu and found the
```

OK, I tried 'archie'. After looking around a quarter or so, I found following:

Host ftp.funet.fi (128.214.248.6) Last updated 04:32 8 Apr 1994

Location: /pub/ham/packet/eproms

FILE -rw-rw-r-- 15742 bytes 03:00 28 Nov 1992 tf23pk88.zip

Location: /pub/ham/packet/misc

FILE -rw-r--r- 20874 bytes 03:00 19 Oct 1991 tf23.1zh

FILE -rw-r--r- 128680 bytes 09:51 4 Oct 1993 tf23src.zip

FILE -rw-r--r- 30998 bytes 09:50 4 Oct 1993 tf24a.zip

FILE -rw-r--r- 30956 bytes 09:50 4 Oct 1993 tf24c27.zip

FILE -rw-r--r- 16256 bytes 13:07 27 Dec 1993 tf26\_10.1zh

I ftp'ed tf24c27.zip, and it looks like this contains documentation along with eprom code. However, it is packed by pkzip 2.0 so that my (public) unzip decode under unix cannot unpack it.

tf23src.zip looks like a source code - but I don't think that the compiler and assembler are part of this archive.

[snip]

If you cannot fetch tf2\*.zip from ftp.funet.fi or whereever, give me a note and I mail it to you. Just do the same if it happens, that this isn't the right eprom (but I don't think that any TNC1's are supported in 1993) and you need the eproms I use at home.

-----8<------

If it dosen't help you, I can fetch my configuration at home and make it available via public ftp. But I only do it by request.

Note that I have the complete source code of Nord><Link TheFirmware and Nord><Link TheNet, too.

However, TheNet is not up to date and does not contain DAMA. TheFirmware contains DAMA and those tree modes: WA8DED, HostMode and KISS/SMACK. SMACK is the KISS mode with Checksum-Extension mainly used for WAMPES nowadays.

I also run TOP (The Other Packet), which is written in Turbo Pascal and contains many features like:
Macros

RUN-Directory AutoBin

AutoBoxBin (for DieBox)
TFPCR/TFPCX support

On request I can put it in public FTP, too.

But please request by e-mail what you want!
I don't want to fill the FTP server with unneccesary data.

-Sincerely yours, \ | | /nick Tino hilbig@uni-augsburg.de
Mit freundlichen Gr"u"sen, \ |-| finger hilbigva@ftp.uni-augsburg.de
Valentin Hilbig \ | Packet Radio dg8mgv @ db0sao.deu.eu
GCS 1.0.1: d? p- c+++ l++ u++ e+@ m+ s !n h+(\*) f- g+ w+++ t++ r- !y
Nobody is perfect. I am too.

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End of Ham-Digital Digest V94 #127 \*\*\*\*\*\*\*\*\*\*\*\*